REMARKS:

After entry of this response, claims 1, 2, 4 to 7, 13 to 17, 19 to 22, 27 to 31, 33 to 36, and 41 to 46 will be pending. In this paper, claims 1, 13, 16, 27, 30, and 41 have been amended, claims 3, 18, and 32 have been cancelled, and claims 44 to 46 have been added. Claims 1, 13, 16, 27, 30, and 41 are the independent claims. Entry of this response, reconsideration and further examination are respectfully requested.

Amendments to Specification

An earlier amendment to the specification has been modified so that the added text more closely matches the text at page 4, lines 18 to 21, from which the added text finds direct support. Applicant believes that no new matter has been added.

Section 103 Rejections

Claims 1 to 7, 16 to 22, and 30 to 36: These claims were rejected under 35 U.S.C. § 103(a) over U.S. Patent 5,553,235 (Chen) in view of U.S. Patent No. 5,933,594 (La Joie) and U.S. Patent No. 6,189,114 (Orr). The independent ones of these claims are reproduced below, as amended:

> 1. A method, including steps of
> repeatedly reviewing monitoring statistics regarding operation of a file server, said steps of reviewing being performed at least as often as a selected time period; and

processing said monitoring statistics using a diagnostic software module on said file server, in response to said steps of repeatedly reviewing;

wherein said diagnostic software module diagnoses a behavior of said file server to determine a specific problem or problems by comparing said monitoring statistics to rules or patterns representing abnormal states of operation for said file server; and

wherein said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server.

16. A file server comprising:

an interface to a network;

mass storage accessible through said interface;

a processor that controls access to said mass storage; and

a memory that stores information including instructions executable by said processor, said instructions including steps of (a) repeatedly reviewing monitoring statistics regarding operation of said file server, said steps of reviewing being performed at least as often as a selected time period, and (b) processing said monitoring statistics using a diagnostic software module on said file server, in response to said steps of repeatedly reviewing;

wherein said diagnostic software module diagnoses a behavior of said file server to determine a specific problem or problems by comparing said monitoring statistics to rules or patterns representing abnormal states of operation for said file server; and

wherein said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server.

30. A memory storing information including instructions, the instructions executable by a processor to control a file server, the instructions including steps of

repeatedly reviewing monitoring statistics regarding operation of said file server, said steps of reviewing being performed at least as often as a selected time period; and

processing said monitoring statistics using a diagnostic software module on said file server, in response to said steps of repeatedly reviewing;

> wherein said diagnostic software module diagnoses a behavior of said file server to determine a specific problem or problems by comparing said monitoring statistics to rules or patterns representing abnormal states of operation for said file server; and
>
> wherein said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server.

The applied Chen reference is not seen to disclose or to suggest the foregoing features of claims 1, 16, and 30, at least with respect to the feature that "said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server."

This feature is akin to a feature recited by cancelled claims 3, 18, and 32. These claims recited the feature that "said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing levels within an operating system of said file server." One significant difference is that claims 1, 16, and 30 do not merely recite "differing levels within an operating system," but rather "differing *protocol* levels within an operating system."

In this regard, col. 83, line 28 et seq. of Chen was cited for teaching the features of claims 3, 18, and 32. Applicant is unsure what portion of this text was being equated with the claimed "differing levels," but is nonetheless confident that the cited text does not recite monitoring statistics gathered by modules in differing *protocol* levels within an operating system.

In fact, neither Chen nor the remaining art applied against these claims is seen by Applicant to discuss gathering monitoring statistics from differing protocol levels within an operating system.

Applicant further notes that the gathering of monitoring statistics from differing protocol levels is not a trivial innovation. Rather, certain types of errors are more apparent when viewed from the combined view of statistics taken from differing protocol levels. This feature is therefore believed to add capabilities not suggested by the applied art, bolstering Applicant's position that the feature renders the claims unobvious.

For at least the foregoing reasons, reconsideration and withdrawal are respectfully requested of the § 103 rejection of claims 1, 16, and 30, as well as of their dependent claims. Allowance of these claims also is respectfully requested.

Claims 13 to 15, 27 to 29, and 41 to 43: Claims 13, 15, 27, 29, 41, and 43 were rejected under § 103(a) over U.S. Patent No. 4,296,464 (Woods) in view of Orr and Chen. Claims 14, 28, and 42 were rejected under § 103(a) over Woods in view of Orr, Chen, and U.S. Patent No. 6,012,100 (Frailong). The independent ones of these claims are reproduced below, as amended:

> 13. A method, including steps of
> tracking configuration changes to a file server;
> maintaining monitoring statistics for said file server;
> identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes;
> identifying possible errors or other faults for said server associated with said changes in said monitoring statistics;
> determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely; and

identifying, in response to which of said possible errors or other faults is most likely, one or more of said configuration changes.

27. A file server comprising:
an interface to a network;
mass storage accessible through said interface;
a processor that controls access to said mass storage; and
a memory that stores information including instructions executable by said processor, said instructions including steps of (a) tracking configuration changes to said file server, (b) maintaining monitoring statistics for said file server, (c) identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes, (d) identifying possible errors or other faults for said server associated with said changes in said monitoring statistics, (e) determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely, and (f identifying, in response to which of said possible errors or other faults is most likely, one or more of said configuration changes.

41. A memory storing information including instructions, the instructions executable by a processor to control a file server, the instructions including steps of
tracking configuration changes to a file server;
maintaining monitoring statistics for said file server;
identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes;
identifying possible errors or other faults for said server associated with said changes in said monitoring statistics;
determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely; and
identifying, in response to which of said possible errors or other faults is most likely, one or more of said configuration changes.

Initially, Applicant's representative thanks the Examiner for the comments in the "Response to Arguments" portion of the Office Action. In this regard, Applicant hereby rescinds an earlier comment that "the claims cannot recite 'how the change in statistics and time of

configuration changes are related,' because that is the very thing determined by the step." Applicant's representative believes that prior to the outstanding Office Action he was construing this language in a different manner than the Examiner.

Applicant has amended claims 13, 27, and 41 in view of Applicant's current understanding of the Examiner's comments. In particular, the claims have been amended to recite "identifying a relationship between changes in said monitoring statistics and timing of said configuration changes." The applied art is not seen by Applicant to teach this feature.

As noted by the Examiner in the "Response to Arguments" section, this language "establishes the *identification* of a connection of prior existence rather than forming a connection that has not necessarily been connected previously." The applied art is not seen by Applicant to teach such a connection.

The claims also have been amended in view of the Examiner's comments that Applicant had "removed any determination that the identified configuration change is responsible for the error of the file system" and that the claims are "open to the interpretation that said identification of the configuration change need only occur after said relating, and need not have any further connection, including but not limited to, the information regarding any such relation of statistics to configuration."

In more detail, claims 13, 27, and 41 now recite "determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely" and "identifying, in response to which of said possible errors or other faults is most likely, one or more of said configuration

changes." Thus, the claimed configuration changes are identified in response to which of said possible errors or other faults is most likely, which in turn is determined in response to a relationship between changes in monitoring statistics for the file server and timing of configuration changes. The claims therefore establish a connection between identification of the configuration changes and the relationship between changes in monitoring statistics and timing of the configuration changes. The applied art is not seen to teach these features.

In view of the foregoing, reconsideration and withdrawal are respectfully requested of the § 103 rejection of claims 13, 27, and 41, as well as of their dependent claims. Allowance of these claims also is respectfully requested.

Claims 44 to 46: These new claims are reproduced below:

> 44. A method as in claim 1, further including steps of
> selecting parameters for said differing protocol levels;
> using said diagnostic software module to determine a measure of efficiency for said file server using a higher one of said differing protocol levels; and
> selecting new parameters for a lower one of said differing protocol levels in response to said measure of efficiency.
>
> 45. A file server as in claim 16, said instructions further comprising steps of: (c) selecting parameters for said differing protocol levels; (d) using said diagnostic software module to determine a measure of efficiency for said file server using a higher one of said differing protocol levels; and (e) selecting new parameters for a lower one of said differing protocol levels in response to said measure of efficiency.
>
> 46. A memory as in claim 30, the instructions further including steps of:
> selecting parameters for said differing protocol levels;
> using said diagnostic software module to determine a measure of efficiency for said file server using a higher one of said differing protocol levels; and

selecting new parameters for a lower one of said differing protocol levels in response to said measure of efficiency.

These claims are believed to further distinguish the invention from the applied art. In particular, the applied art is not seen to teach the selection of new parameters for a lower protocol level within an operating system in response to a measure of efficiency determined using a higher protocol level within the operating system. The applied art is not seen by Applicant to disclose or to suggest such cross-protocol activity.

Closing

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney can be reached at (614) 486-3585. All correspondence should continue to be directed to the address indicated below.

Respectfully submitted,

Dane C. Butzer

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Dane C. Butzer
Reg. No. 43,521

Swernofsky Law Group PC
P.O. Box 390013
Mountain View, CA 94039-0013
(650) 947-0700